

wavelengths of light to a second electronic signal. A circuit is also provided, for manipulating the first and second electronic signals to generate an output signal responsive to the selected wavelengths of light.

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Paragraph 0008 Amendment ✓

Please amend Paragraph 0008 in the Specification to provide as follows:

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*G2*  
[0008] According to another aspect of the invention, a first photodiode converts the selected wavelengths of light to a first electronic signal. A second photodiode converts said wavelengths of light to a second electronic signal. A circuit manipulates the first and second electronic signals to generate an output signal responsive to the selected wavelengths of light.

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Paragraph 0010 Amendment ✓

Please amend Paragraph 0010 in the Specification to provide as follows:

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*G3*  
[0010] According to the methods of the invention, an electronic signal corresponding to selected wavelengths of light is generated. The method includes the step of converting said wavelength-segments of light into first and second electronic signals. The selected wavelengths are included in the converted wavelength segments. In another step, the first and second electronic signals are manipulated to generate an output signal corresponding to the selected wavelengths of light.

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Paragraph 0024 Amendment ✓

Please amend Paragraph 0024 in the Specification to provide as follows:

04 [0024] Figure 2 is a process flow diagram showing the steps and the method of the invention. Preliminarily, it is assumed that the invention is exposed to light 100. The light contains a continuum of wavelengths here represented by  $\lambda_x - \lambda_y$ . In step 102 and concurrent step 104, a photoconductivity response is obtained to non-identical spectrum segments within the continuum  $\lambda_x - \lambda_y$ , here represented by  $\lambda_A$  shown in step box 102 and  $\lambda_B$  shown in step box 104. The photoconductivity responses generated in steps 102 and 104 result in first and second electronic signals, shown respectively by steps 106 and 108. In step 110, the first and second electronic signals are manipulated, preferably by a circuit further described below. The principle of the manipulation step 110 is to use the differential between responses to  $\lambda_A$  and  $\lambda_B$  to produce a calibrated electronic signal. Both sensors receive the same amount of light as in the preferred embodiment. Accordingly, in step 112, an output signal is generated which corresponds to selected wavelengths of light, for example,  $\lambda_B$ . This general description of the methods of the invention will become increasingly clear in light of the further description which follows.

Paragraph 0032 Amendment

Please amend the Paragraph 0032 of the Specification to provide as follows:

03 [0032] Figure 6 depicts the photodiode A and photodiode B currents 400, 500, of Figures 4 and 5 on an inverted scale (negative up). One aspect of silicon used by the invention is demonstrated by Figure 6. Regardless of the thickness, silicon photodiodes cut off at about 1.0 micrometers of wavelength. Figure 6 also illustrates how the optical thickness differential between photodiode A and photodiode B may be used to provide the desired photo-response. The slope of the electronic signal conversion to about 1.0 micrometers is, due to the properties of silicon, approximately proportional to the optical thickness. Subtracting currents between photodiode A and photodiode B from the signal of photodiode B, the much reduced response represented by curve 600